Briefs

Agricultural Trade

# Export Share of U.S. Ag Production Is a Stable 21 Percent

Export share—the ratio of export volume to output (production volume, including stocks)—measures the portion of domestically-produced supply that is shipped abroad. The aggregate export share of total U.S. agricultural production was 21 percent in 2001, equal to the rate in 2000 and the average since 1996. The export share of U.S. crop production has been stable, averaging 24 percent from 1996 to 2001, and the export share of U.S. livestock products has averaged 6 percent. While the export share of crops in recent years is lower than in the 1980s and in the first half of the 1990s, the export share of livestock products is higher now than in the 1980s.

In general, as export share increases, U.S. farm income becomes more dependent on exports. Export share is influenced by factors such as prices and exchange rates, which are in turn affected by agricultural, trade, and macroeconomic policies. Demand for exports is further influenced by income growth, tastes, brand-name preferences, and product quality. Factors affecting supply include abnormal weather, production costs, pest infestation, and trade barriers, including those related to food safety.

As U.S. exporters and foreign competitors faced dismal to depressed prices for farm commodities in world markets starting in 1998, the dollar's exchange rate assumed a weightier role in determining U.S. export competitiveness. With weak import demand, competition for markets becomes more dependent on exchange-rate-adjusted prices. As the dollar appreciated in value over the past 6 years, the export shares of U.S. crops and livestock products remained flat. Depreciated foreign currencies and comparatively strong U.S. domestic demand for food were contributing factors to the stable shares. During the 1990s, U.S. per capita food consumption continued its rise from 1,900 pounds in the 1980s to more than 2,000 pounds in 2000.

In 2001, however, export shares for a number of commodities appeared to rebound slightly. Export shares of poultry meat and pork increased from 2000 to 2001, as did shares of fruits, nuts, vegetables, rice, cotton, tobacco, oilseeds, and vegetable oils. In some cases, such as vegetables, lower production estimates in 2001 helped raise their export share. But in general, higher export volume, particularly of horticultural products, was responsible for the boost.

## The Significance Of Export Shares

Export shares gauge the size of foreign markets relative to the domestic market. They represent the capacity of U.S. farmers to supply customers outside the U.S. on the basis of price, product quality, and quantity or volume requirements. Over time, export shares reflect long-term demand and supply conditions as well as production costs in the U.S. relative to foreign markets.

Red meat and poultry meat export shares have trended upward. Beef and pork export shares have climbed steadily since the 1980s, except in 2001 for beef. Export shares of poultry meat have also consistently increased, except in 1998. However, dairy products and other animal products (tallow, hides, fish, and shellfish) show generally declining export shares reflecting

**U.S. Export Shares of Commodity Output Holding Steady Since 1996**

| Commodity group | Average 1980-84 | Average 1985-89 | Average 1990-94 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | *Percent exported* | | | | | |
| Total agriculture | 27.2 | 22.9 | 21.6 | 24.0 | 20.8 | 20.1 | 20.8 | 21.2 | 21.0 | 21.1 |
| Livestock | 5.0 | 4.6 | 6.1 | 7.0 | 6.1 | 6.1 | 6.0 | 5.9 | 6.1 | 6.5 |
| Red meat | 1.2 | 2.0 | 4.1 | 6.0 | 6.6 | 7.4 | 7.5 | 8.0 | 8.1 | 8.4 |
| Poultry meat | 4.0 | 3.6 | 7.4 | 14.3 | 16.1 | 17.2 | 16.6 | 16.2 | 16.8 | 18.6 |
| Dairy products | 2.4 | 2.1 | 3.4 | 2.8 | 1.3 | 1.3 | 0.9 | 0.8 | 1.0 | 1.1 |
| Other animal products[1] | 42.5 | 40.6 | 29.6 | 30.4 | 26.6 | 24.3 | 27.9 | 26.6 | 27.4 | 28.6 |
| Crops | 31.2 | 26.5 | 24.6 | 27.5 | 23.6 | 22.8 | 23.7 | 24.2 | 23.9 | 24.1 |
| Food grains | 61.1 | 53.3 | 51.0 | 53.0 | 45.4 | 47.3 | 45.1 | 47.1 | 45.9 | 46.6 |
| Coarse grains[2] | 27.4 | 23.4 | 21.2 | 26.1 | 20.4 | 18.2 | 21.7 | 21.2 | 21.0 | 20.5 |
| Oilseeds/meal/oil | 32.9 | 28.3 | 25.4 | 26.9 | 27.7 | 27.5 | 24.6 | 27.2 | 27.2 | 27.5 |
| Fruits and nuts[3] | 8.9 | 8.9 | 12.3 | 13.1 | 13.5 | 12.3 | 12.3 | 13.2 | 12.3 | 13.5 |
| Vegetables | 5.3 | 4.2 | 5.9 | 6.8 | 6.4 | 6.9 | 7.3 | 6.7 | 7.1 | 8.1 |
| Cotton and tobacco | 45.9 | 41.0 | 38.6 | 38.6 | 37.6 | 36.0 | 34.0 | 38.1 | 40.8 | 51.4 |
| Other crops [4] | 8.2 | 5.9 | 7.5 | 7.0 | 7.2 | 7.2 | 6.9 | 6.2 | 5.8 | 5.8 |

1. Includes hides, tallow, fish and shellfish; excludes live animals. 2. Includes corn, barley, sorghum, oats, and rye. 3. Includes fruit juices. 4. Calculated from value of exports and farm cash receipts; includes sugar, seeds, and nursery products.
Sources: USDA's commodity yearbooks, *Foreign Agricultural Trade of the U.S.* (FATUS), and Production, Supply, and Distribution database.

Economic Research Service, USDA

## Measuring Export Share

Ideally, export shares apply to primary commodities with minimal value added, since processing may add or subtract weight that changes the original content. Food preparations, fruit juices, and wine are examples of products that have significant value-added content. Since value adding occurs largely outside the farm sector, processed exports that differ considerably from their primary production content do not provide an accurate measure of the farm sector's total output and sales.

A related measurement problem occurs when spoilage or waste is not accounted for. As such, export shares are lower if waste is not subtracted from production. However, data on waste are not widely available and, when estimated, are usually combined with feed and seed use. Thus, export shares are not adjusted for wasted production.

Since exports can include products that were in storage, the difference between beginning and ending stocks is added to the volume produced when calculating export share. This adjustment is generally larger for less perishable commodities. Thus, export share is based on actual market supply rather than harvested production in a given year. The result is a more stable export share pattern.

the combination of weaker world demand and more abundant world supply. Since 1996, the export volume of U.S. animal products has risen at a pace faster than domestic animal production.

The gain in export shares for beef and pork from the 1980s is the result of a number of domestic and foreign factors. U.S. per capita consumption of red meat has declined since the 1970s. At the same time, steady gains in per capita income in many foreign markets raised demand for high-value products such as meat. Russian demand for chicken meat, which was 43 percent of total U.S. chicken meat shipments in 2001, has climbed steadily, except in 1999 when it collapsed along with the Russian currency. And, as foreign demand for U.S. meat goes up, so does domestic demand for feed grains and oilmeal. As a result, export shares of U.S. coarse grains and oilseeds have remained flat since 1997.

Rising U.S. supplies of fruits, nuts, and vegetables, coupled with improved packaging, preservation, and transportation technology, have expanded foreign sales. In 2001, 29 percent of noncitrus fruit production was exported, compared with 12 percent in the late 1980s. Almonds led the surge in export share of tree nuts, which grew from 45 percent in the 1980s to 68 percent in 2001. Even as per capita consumption of fruits and vegetables in the U.S. rose over the past 2 decades, production grew faster in response to rising foreign demand. Improved storage equipment and facilities also made larger exports feasible, while lower trade barriers and shipping costs further boosted competitiveness of U.S. horticulture products. Overall, the volume of U.S. crop exports has risen since 1997, except in 2001 when it dropped 500,000 tons.

The overall U.S. export share appears stable at 21 percent despite the strong dollar and increased foreign competition. This ability to supply foreign markets even when import demand is relatively low indicates a level of competitiveness on which future potential sales can be based. AO

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